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09/320,252	05/26/1999	PAUL EVAN MATZ	02950.P033	4390

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EXAMINER

ENGLAND, DAVID E

ART UNIT

PAPER NUMBER

2143

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Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/320,252

Applicant(s)

MATZ ET AL.

Examiner

David E. England

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 5, 7 - 13, 15 - 17, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 5, 7 - 13, 15 - 17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

1. Claims 1 – 5, 7 – 13, 15 – 17, 19 and 20 are presented for examination.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 9 – 11, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chopra et al. (6167423) (hereinafter Chopra) in view of Boland (6269390).

3. Referencing claim 1, Chopra teaches a method of executing a transaction task within a transaction processing system, the method including:

4. responsive to an event, identifying a workflow associated with the event, (e.g. col. 1, line 34 – col. 2, line 33 & col. 5, lines 1 – 24); and

5. distributing a task, that at least partially executes the workflow, to an available thread within a pool of threads operating within a multiprocessor system, (e.g. col. 1, line 34 – col. 2, line 33 & col. 5, lines 1 – 24). But Chopra does not specifically teach identifying a processor affinity attributed to the task;

6. assigning the available thread to a processor within the multiprocessor system according to the processor affinity attributed to the task; and

7. distributing a task, from a task queue according to a priority dynamically assigned to the task and distributing the task.

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8. Boland teaches identifying a processor affinity attributed to the task, (e.g. col. 1, line 11 – col. 2, line 26); and

9. assigning the available thread to a processor within the multiprocessor system according to the processor affinity attributed to the task, (e.g. col. 1, line 11 – col. 2, line 26). It would have been obvious to one skilled in the art at the time the invention was made to combine Boland with Chopra because if a task is allocated to a specific processor that is designed to process specific threads of tasks it could speed up the processing time, making the system more efficient. Boland does not specifically teach distributing a task, from a task queue according to a priority dynamically assigned to the task and distributing the task, (e.g. col. 5, line 46 – col. 6, line 6 & col. 16, lines 16 – 26 & col. 20, line 50 – col. 21, line 14). It would have been obvious to one skilled in the art at the time the invention was made to combine Sequeira with the combined system of Chopra and Boland because if a new task that is important to the processing of upcoming task it would have to be processed first so to prevent errors in the system.

10. Referencing claim 2, Chopra teaches wherein the event comprises a transaction event and the task comprises a transaction task responsive to a transaction request associated with the transaction event, (e.g. col. 8, lines 29 – 65).

11. Claims 9 – 11 are rejected for similar reasons as stated above.

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12. Claims 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chopra (6167423) in view of Boland (6269390) in further view of Szlam et al. (6314089) (hereinafter Szlam).

13. As per claim 3, Chopra and Boland do not specifically teach wherein the transaction task comprises a transaction routing task that routes the transaction request associated with the transaction event to an agent of the transaction processing system. Szlam teaches wherein the transaction task comprises a transaction routing task that routes the transaction request associated with the transaction event to an agent of the transaction processing system, (e.g. col. 21, lines 1 – 19). It would have been obvious to one skilled in the art at the time the invention was made to combine Szlam with the combine system of Chopra and Boland because if a transaction task needed a resource that an agent possessed the transaction task could request it from the agent therefore aiding in the completion of the task.

14. Claim 16 is rejected for similar reasons as stated above.

15. Claims 4, 12, 13, 15, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chopra (6167423) in view of Boland (6269390) in further view of Emmond (5327557).

16. As per claim 4, Chopra and Boland do not specifically teach within the transaction task comprises a transaction information task to either store or retrieve information pertinent to a transaction. Emmond teaches within the transaction task comprises a transaction information task

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to either store or retrieve information pertinent to a transaction, (e.g. col. 6, lines 49 – 64). It would have been obvious to one skilled in the art at the time the invention was made to combine Emmond with the combine system of Chopra and Boland because if a transaction task's information could aid in the process of another transaction task it would be more efficient to have the first transaction task be able to store its information so another transaction task could retrieve it for future use.

17. As per claim 12, Chopra teaches a scheduler that issues the task to the thread within the pool of threads, (e.g. col. 1, line 62 – col. 2, line 9). Chopra and Boland do not specifically teach the task queue. Emmond teaches the task queue, (e.g. col. 5, line 19 – col. 6, line 22). It would have been obvious to one skilled in the art at the time the invention was made to combine Emmond with the combine system of Chopra and Boland because more than one task could be processed at one time therefore, it would be faster and more efficient to have a queue of tasks utilizing a pool of threads.

18. Claim 13, 15, 17 are rejected for similar reasons as stated above.

19. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chopra (6167423) in view of Boland (6269390) in further view of Sequeira (6222530).

20. As per claim 5, Chopra and Boland do not specifically teach wherein the task has a real-time priority and is distributed in accordance with the real-time priority to the available

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thread within the pool of threads. Sequeira teaches wherein the task has a real-time priority and is distributed in accordance with the real-time priority to the available thread within the pool of threads, (e.g. col. 9, lines 16 – 31). It would have been obvious to one skilled in the art at the time the invention was made to combine Sequeira with the combine system of Chopra and Boland because if an incoming task that is important, needs to be completed first, it could be sent to the next available thread within the pool of threads before the other tasks and be processed sooner.

21. Claims 7, 8, 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chopra (6167423) in view of Boland (6269390) in further view of Lucovsky et al. (6223207) (hereinafter Lucovsky).

22. As per claim 7, Chopra and Boland do not specifically teach assigning the available thread to a processor within the multiprocessor system according to a thread priority. Lucovsky teaches assigning the available thread to a processor within the multiprocessor system according to a thread priority, (e.g. col. 8, lines 13 – 40). It would have been obvious to one skilled in the art at the time the invention was made to combine Lucovsky with the combine system of Chopra and Boland because if a thread that has important information that other threads rely on does not get processed first it could cause errors in the system.

23. As per claim 8, Chopra and Boland do not specifically teach assigning the thread priority to the available thread based on a priority, of the task distributed to the available thread.

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Lucovsky teaches assigning the thread priority to the available thread based on a priority, of the task distributed to the available thread, (e.g. col. 8, lines 13 – 40). It would have been obvious to one skilled in the art at the time the invention was made to combine Lucovsky with the combine system of Chopra and Boland because if an incoming task that is important, needs to be completed first, it could be sent to the next available thread within the pool of threads therefore, causing the thread to have the same priority as the task therefore having the task be processed sooner.

24. Claims 19 and 20 are rejected for similar reasons as stated above.

#### *Response to Arguments*

25. Applicant's arguments filed 06/11/2003 have been fully considered but they are not persuasive.

26. In the remarks, Applicant argued in substance that Sequeira describes a Master Scheduler that distributes a task without providing a rationale for distribution. Indeed, the above quote describes a Master Scheduler that may distribute the task ahead of schedule or sufficiently prior to schedule but does not describe how the Master Scheduler distinguishes between the alternatives. Moreover, the above quote does not describe a task priority much less one that dynamically assigned to a task.



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27. As to part 1, Examiner would like to first draw the attention of the Applicant to the rejection disclosed above, necessitated by the current amendment, that states where Sequeira teaches dynamic assigning as “real time” which was also stated by the Applicant in the current amendment, (Applicant’s amendment page 8, lines 8 – 10), further more Applicant does not disclose anywhere in the claims of 1 and 9 a “rationale for distribution” or to “distinguish between the alternatives”. Examiner has stated above in the new rejection caused by amendment, that Sequeira discloses priority scheduling and it would be obvious to one of ordinary skill in the art that if a system is going to prioritize tasks that are in a queue, the system would have to “distinguish” between the different tasks. Therefore, rejection stands as stated above.

### *Conclusion*

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 703-305-5333.


The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 703-308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are none for regular communications and none for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is none.

David E. England  
Examiner  
Art Unit 2143

De   
July 29, 2003

  
**DAVID WILEY**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**